

theoretical in nature. There is no discussion of the use of diamondoid materials and their ability to provide one with nanoscale construction devices.

The secondary reference, Merkle, relates to a body of work wherein the use of diamondoids as structural components in nanoscale technologies is theoretically discussed. Envisioned is a complex nano-meter sized diamondoid object, such as bearings, that are analogs of macroscopic machine parts. Their properties were calculated using advanced computerized molecular simulations. The work is theoretical in its projection because actual materials and methods to provide such materials to the public were simply not available. The structures imagined in the Merkle reference would be impossible to prepare using current technologies.

The Merkle reference is discussed briefly in the present application, at lines 1-19 on page 4. The work of Merkle is discussed in connection with the work of Drexler. The theoretical nature of the work does not place in the possession of the public the nanoscale construction devices provided by the presently claimed invention.

The presently claimed invention is based on the recognition of higher diamondoids as true nanoscale construction devices. The present invention is based on its recognition of higher diamondoids and the isolation thereof, as the present invention provides to the public the ability to practice nanoscale construction using various nanoscale devices based upon the higher diamondoids. The prior art does not provide or place in the possession of the public such materials or concepts of using these higher diamondoids as nanoscale devices for nanoscale construction. The theoretical discussions in the prior art of Spencer et al and Merkle do not place in the possession of the public the ability to practice the presently claimed invention.

Moreover, the specific details provided in the present application with regard to the use of compounds which can be isolated, i.e., the higher diamondoids, is nowhere disclosed or suggested in the prior art. One of ordinary skill in the art reading Spencer et al and Merkle would in no manner be able to practice the presently claimed invention, unless the information provided in the present application was utilized. In other words, one of ordinary skill in the art could not deem it obvious to actually practice the presently claimed invention upon a consideration of Spencer et al and Merkle.

Accordingly, favorable reconsideration and withdrawal of the Examiner's rejection of claims 1 and 15, and the Examiner's rejection of claims 2-14 and 16-20, both under 35 U.S.C. §103 over Spencer et al in view of Merkle, are respectfully requested. It is submitted that the combination of references presented does not place in the possession of the public or render obvious to the public applicants' claimed invention.

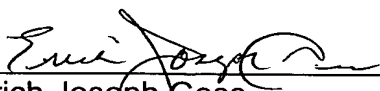
In view of the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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